

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A disposable downhole tool comprising:
a material that dissolves when exposed to a chemical solution~~[[.]]~~; **and**
a frangible enclosure that stores the chemical solution;
wherein the chemical solution is released by breaking the frangible enclosure.
2. (Original) The disposable downhole tool of claim 1 wherein the material comprises: an epoxy resin, a fiberglass, or a combination thereof.
3. (Original) The disposable downhole tool of claim 1 wherein the material comprises: a fiberglass and a binding agent.
4. (Original) The disposable downhole tool of claim 1 wherein the chemical solution comprises: a caustic fluid, an acidic fluid, or a combination thereof.
5. (Original) The disposable downhole tool of claim 1 wherein the material is customizable to achieve a desired dissolution rate when the material is exposed to the chemical solution.
6. (Canceled)
7. (Currently Amended) The disposable downhole tool of claim ~~[[6]]~~ **1** further comprising an activation mechanism for releasing the chemical solution from the enclosure.
8. (Canceled)

9. (Original) The disposable downhole tool of claim 7 wherein the activation mechanism is timer-controlled.
10. (Original) The disposable downhole tool of claim 7 wherein the activation mechanism is hydraulically operated.
11. (Original) The disposable downhole tool of claim 7 wherein the activation mechanism is electrically operated.
12. (Original) The disposable downhole tool of claim 7 wherein the activation mechanism is operated by a communication means.
13. (Original) The disposable downhole tool of claim 1 wherein the tool is a frac plug.
14. (Original) The disposable downhole tool of claim 1 wherein the tool is a bridge plug.
15. (Original) The disposable downhole tool of claim 1 wherein the tool is a packer.
16. (Currently Amended) A method for performing a downhole operation wherein a downhole tool is disposed within a well bore comprising:
dissolving the tool within the well bore via a chemical solution[.]); and
applying the chemical solution to the tool by breaking a frangible object
containing the chemical solution.
17. (Original) The method of claim 16 wherein the tool is fabricated from a material comprising: epoxy resin, fiberglass, or a combination thereof.
18. (Original) The method of claim 16 wherein the tool is fabricated from a material comprising: a fiberglass and a binding agent.

19. (Original) The method of claim 16 wherein the chemical solution comprises: a caustic fluid, an acidic fluid, or a combination thereof.
20. (Original) The method of claim 16 further comprising fabricating the tool from a material that may be customized to achieve a desired dissolution rate of the tool.
21. (Original) The method of claim 16 wherein the chemical solution may be customized to achieve a desired dissolution rate of the tool.
22. (Original) The method of claim 16 wherein the chemical solution is applied to the tool before performing the downhole operation.
23. (Original) The method of claim 16 wherein the chemical solution is applied to the tool during the downhole operation.
24. (Original) The method of claim 16 wherein the chemical solution is applied to the tool after performing the downhole operation.
25. (Original) The method of claim 16 wherein the chemical solution is applied to the tool via a mechanical operation.
26. (Original) The method of claim 16 wherein the chemical solution is applied to the tool via a hydraulic operation.
27. (Original) The method of claim 16 wherein the chemical solution is applied to the tool via an electrical operation.
28. (Original) The method of claim 16 wherein the chemical solution is applied to the tool via a timer-controlled operation.

29. (Original) The method of claim 16 wherein the chemical solution is applied to the tool using a communication means.

30. (Canceled)

31. (Canceled)

32. (Currently Amended) A method for performing a downhole operation wherein a downhole tool is disposed within a well bore comprising:

dissolving the tool within the well bore via a chemical solution, wherein the chemical solution is applied to the tool by dispensing the chemical solution into the well bore;

~~The method of claim 30~~ wherein the dispensing step comprises:

lowering a frangible object containing the chemical solution into the well bore; and

breaking the frangible object.

33. (Currently Amended) A method for performing a downhole operation wherein a downhole tool is disposed within a well bore comprising:

dissolving the tool within the well bore via a chemical solution, wherein the chemical solution is applied to the tool by dispensing the chemical solution into the well bore;

~~The method of claim 30~~ wherein the dispensing step comprises:

lowering a conduit into the well bore; and

flowing the chemical solution through the conduit onto the tool.

34. (Currently Amended) A method for performing a downhole operation wherein a downhole tool is disposed within a well bore comprising:

dissolving the tool within the well bore via a chemical solution;

~~The method of claim 16 further comprising:~~

moving a dart within the well bore; and

engaging the dart with the tool to release the chemical solution.

35. (Original) The method of claim 34 wherein the dart contains the chemical solution.

36. (Original) The method of claim 34 wherein the tool contains the chemical solution.

37. (Original) The method of claim 34 wherein the moving step comprises pumping a fluid into the well bore behind the dart.

38. (Original) The method of claim 34 wherein the moving step comprises allowing the dart to free fall by gravity.

39. (Original) The method of claim 16 wherein the tool comprises a frac plug, a bridge plug, or a packer.

40. (Currently Amended) A system for applying a chemical solution to a downhole tool to dissolve the tool within a well bore[[.]] **comprising:**

a frangible enclosure that contains the chemical solution;

wherein the enclosure is broken to release the chemical.

41. (Canceled)

42. (Currently Amended) The system of claim [[41]] **40** wherein the enclosure is disposed on the tool.

43. (Currently Amended) The system of claim [[41]] **40** further comprising an activation mechanism for releasing the chemical solution from the enclosure.

44. (Canceled)

45. (Original) The system of claim 43 wherein the activation mechanism is mechanically operated.

46. (Original) The system of claim 43 wherein the activation mechanism is hydraulically operated.

47. (Original) The system of claim 43 wherein the activation mechanism is electrically operated.

48. (Original) The system of claim 43 wherein the activation mechanism is operated by a communications means.

49. (Original) The system of claim 43 wherein the activation mechanism is timer-controlled.

50. (Canceled)

51. (Original) The system of claim 50 wherein the enclosure is lowered to the tool on a slick line.

52. (Original) The system of claim 50 wherein the enclosure is dropped into the well bore to engage the tool.

53. (Canceled)

54. (Original) The system of claim 40 wherein the tool is formed of a material comprising: epoxy resin, fiberglass, or a combination thereof.

55. (Original) The system of claim 40 wherein the tool is formed of a material comprising: a fiberglass and a binding agent.

56. (Original) The system of claim 40 wherein the chemical solution comprises: a caustic fluid, an acidic fluid, or a combination thereof.

57. – 80. (Canceled)